TPC-307W

7" WSVGA TFT LED LCD Thin-Client Terminal with Intel® Elkhart Lake

Features

- Industrial-grade 7" WSVGA TFT LCD with 50K lifetime and LED backlight
- Intel® Elkhart Lake (EHL) Atom™ X6211E 1.30 GHz, dual core processor with DDR4 SO-DIMM
- Compact, fanless embedded system with aluminum alloy front bezel
- Wide operating temperature range -20 ~ 60 °C (-4 ~ 140 °F)
- True-flat, IP66-rated front panel
- Front-facing LED indicators to show operating status
- True-flat touchscreen with P-CAP multi-touch control
- Supports AC/DC input with optional power adapter
- Chassis grounding protection

Introduction

The TPC-307W thin-client terminal is equipped with a 7" WSVGA TFT LCD, low-power Intel® Elkhart Lake (EHL) Atom™ X6211E 1.30 GHz, dual core processor with DDR4 SO-DIMM to deliver high-performance computing in a compact, fanless system. To enhance the system's durability, TPC-307W features a true-flat touchscreen with IP66-rated front panel, die-cast aluminum alloy front bezel, and P-CAP multi-touch. In addition to supporting a wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F), TPC-307W includes a full-size mini PCIe slot for extending the system functionalities to satisfy diverse automation application needs.

Specifications

General

- **BIOS** — AMI UEFI
- **Certification** — BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** — Fanless design
- **Dimensions (W x H x D)** — 205 x 146 x 56mm (8 x 5.98 x 2.2 inch)
- **Enclosure** — Front bezel: Die cast aluminum alloy
  Back housing: SECC
- **Mounting** — VESA Mount (75 x 75), Panel, Wall
- **OS Support** — Windows 10/11 Enterprise LTSB , Linux
- **Security** — TPM 2.0 (built-in)
- **Power Consumption** — 19.2 W (typical)
- **Power Input** — $24V_{DC} \pm 20\%$
- **Watchdog Timer** — 1 ~ 255 sec (system)
- **Weight (Net)** — 1.5 kg (3.3 lb)

System Hardware

- **CPU** — Intel® Elkhart Lake (EHL)
  Atom™ X6211E 1.30 GHz, dual core
- **Memory** — 1 x DDR4 SO-DIMM (Up to 16G)
- **LAN** — 2 x 10/100/1000BASE-T
- **Expansion Slots** — 1 x M.2 E Key 2230 (USB/PCIe)
- **Storage Slots** — 1 x M.2 M Key 2280 (*SATA)
  *Only Support M.2 2280 SATA SSD
- **I/O** — 1 x Power receptor
  1 x RS-232
  1 x RS-232/422/485
  2 x USB3.0
  2 x USB2.0
  1 x Line Out

LCD Display

- **Display Type** — VGA TFT LED LCD
- **Display Size** — 7"
- **Max. Resolution** — 1024 x 600
- **Max. Colors** — 16.7M
- **Luminance cd/m²** — 500
- **Viewing Angle (H/V°)** — 160/140
- **Backlight Life** — 50,000 hr
- **Contrast Ratio** — 800:1

Touchscreen

- **Light Transmission** — 90% ± 3%
- **Type** — P-CAP multi-touch

Environment

- **Relative Humidity** — Operating, 95% RH @ 40°C, non-condensing
  Non-operating, 95% RH @ 60°C, non-condensing
- **Ingress Protection** — Front panel: IP66
- **Operating Temperature** — -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature** — -30 ~ 70 °C (-22 ~ 158 °F)
- **Vibration Protection** — With M.2 2242: 1 Grms (5 ~ 500 Hz)
 (Operating, random vibration)

Rear View
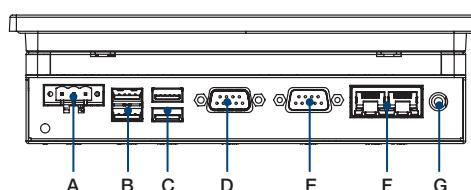
A. Power receptor
B. USB3.0
C. USB2.0
D. RS232

E. RS232/422/485
F. LAN (10/100/1000)
G. Line Out

Dimensions

Unit: mm [inch]

205.00

55.70

75.00

146.92

21.56

0.0
192.0 -0.4

0.0
138.5 -0.4

R5
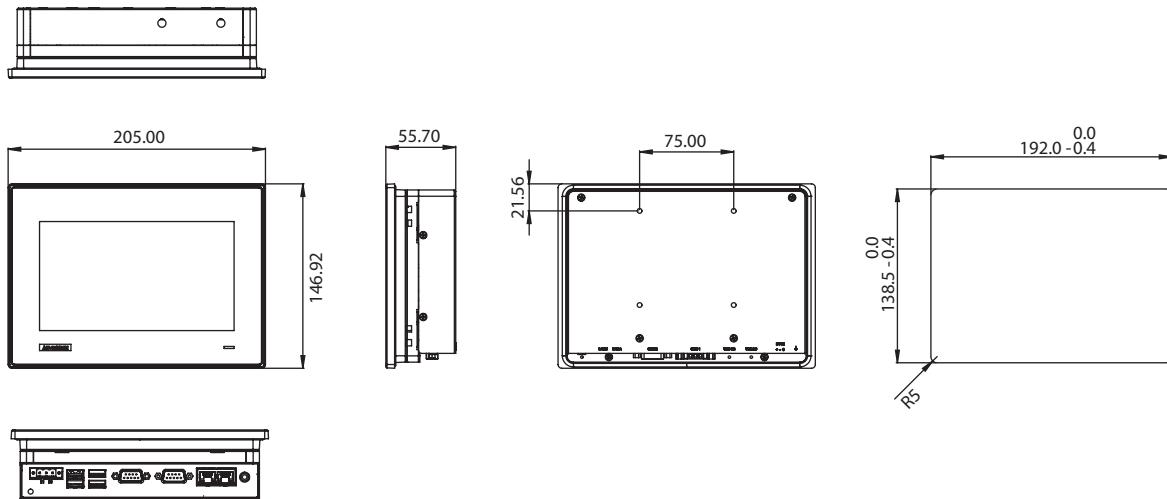
Panel Cutout Dimensions: 192.4 x 139.0 mm

Ordering Information

- **TPC-307W-PE20A** 7" WSVGA Panel PC, Atom X6211E 1.3 GHz , Made in China
- **TPC-307W-PE20AU** 7" WSVGA Panel PC, Atom X6211E 1.3Ghz , Made in Taiwan

Optional Accessories

- **PWR-247-DE** 60W 24 V_{DC} /2.5A power supply
- **1702002600-31** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **1702031801** Power Cable UK Plug 1.8 M
- **1700000596-11** Power Cable China/Australia Plug 1.8 M
- **TPC-WLAN-A1** M.2 AE, Wifi6 + BT5.3, 2T2R,w/Antenna, -40~85°C

Embedded OS

- **20701WX1ES0005** WIN10 LTSC V6.09 B005 for TPC-307W Entry
- **20701WLE1S0009** Img WIN11 LTSC x64 v7.01 B014 TPC-3xxW Entry
- **20701U22DS0004** Image AdvLinuxTu-IOTG_x64 V4.0.6 for TTPC series

Application Software

HMINavi

HMINavi Designer is a powerful and intuitive software program for creating comprehensive human machine interface solutions. HMINavi Designer is an easily integrated development tool with proven value in many application fields. The features include solution-oriented screen objects, high-end vector graphics, Windows fonts for multi-language applications, receipts, alarm functions, as well as data and operation logging capabilities. HMINavi Designer also supports utility programs such as Data Transfer Helper (DTH), recipe editor, and text editor. The HMINavi Designer software is free download for usage, user can directly download before purchase. With online/offline simulation user can directly connect to PLC controller to ensure solid connection and screen design without any issue. HMINavi Runtime, a component of HMINavi, guarantees the reliability and performance of Open Platform because of the minimum system overhead, high data communication rates, sub-second screen switching, and 24/7 operation. Additionally, Advantech's fast response software team is continually adding new functions, communication drivers, and solutions to the software to meet dynamic needs.

TPC-307W Photo
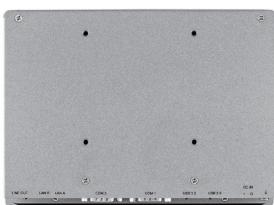
Please note: If some optional modules are offered with the system, additional system certificates may be required in certain regions/countries.
Please contact Advantech for certificate compliance.